

IN THE CLAIMS

Please amend the claims as follows:

1 – 28 (Cancelled)

29. (Currently Amended) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, said residential gateway connecting at least one residential device over said in-home network, the residential gateway:

forwarding state information of said at least one residential device to a control server over said WAN;

forwarding economic setpoint information to said control server over said WAN, said economic setpoint information being a cost below which the cost of operation of the residential device must stay;

receiving control parameters from said control server over said WAN, said control parameters determined by the control server based on at least the following information: relevant control information accessed from one or more climatic information providing servers on said WAN, said forwarded state information of said at least one residential device and said forwarded economic setpoint information, wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint,

whereby said residential gateway controls said at least one residential device based on said received control parameters.

30. (Previously Presented) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said at least one residential device is a home irrigation system comprising:

an irrigation controller connected to said residential gateway; and
at least one sprinkler connected to said irrigation controller.

31. (Previously Presented) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein a watering cycle constitutes said control parameters for said home irrigation system.

32. (Previously Presented) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 31, wherein said watering cycle is also determined based on said economic setpoint information.

33. (Previously Presented) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said economic setpoint information is set to control amount of electricity or water used by said at least one residential device during a particular time period.

34. (Previously Presented) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein said irrigation controller is connected to said residential gateway via an IEEE 802.11b wireless interface.

35. (Previously Presented) A residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said Wide Area Network is the Internet.

36. (Currently Amended) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway, said control server:

retrieving relevant control information from one or more climatic information providing servers on said WAN;

receiving state information of said at least residential device from said residential gateway;

receiving economic setpoint information from said residential gateway, said economic setpoint information being a cost below which the cost of operation of the residential device must stay;

determining control parameters to control said at least one residential device based on at least the following information: said received state information, said retrieved relevant control information, and said received economic setpoint information, wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint;

communicating said control parameters to said residential gateway via said WAN;

wherein said residential gateway communicates with said at least one residential device to provide control of the residential device based on said control parameters.

37. (Previously Presented) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway,

as per claim 36, wherein said at least one residential device is a home irrigation system comprising:

an irrigation controller connected to said residential gateway; and
at least one sprinkler connected to said irrigation controller.

38. (Previously Presented) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway, as per claim 37, wherein a watering cycle constitutes said control parameters for said home irrigation system.

39. (Previously Presented) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway, as per claim 38, wherein said watering cycle is also determined based on said economic setpoint information.

40. (Previously Presented) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway, as per claim 36, wherein said economic setpoint information is set to control amount of electricity or water used by said at least one residential device during a particular time period.

41. (Previously Presented) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway, as per claim 37, wherein said irrigation controller is connected to said residential gateway via an IEEE 802.11b wireless interface.

42. (Previously Presented) A control server connected to a residential gateway via a Wide Area Network (WAN) to control at least one residential device connected to said residential gateway, as per claim 36, wherein said Wide Area Network is the Internet.

43. (Currently Amended) An article of manufacture comprising a computer usable medium having computer readable program code embodied therein which provides determining control parameters by a control server, said medium comprising:

computer readable program code aiding in retrieving relevant control information from one or more climatic information providing servers on said WAN;

computer readable program code aiding in receiving state information of said at least residential device from said residential gateway;

computer readable program code aiding in receiving economic setpoint information from said residential gateway, said economic setpoint information being a cost below which the cost of operation of the residential device must stay;

computer readable program code determining control parameters to control said at least one residential device based on at least the following information: said received state information, said retrieved relevant control information, and said received economic setpoint information, wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint; and

computer readable program code aiding in communicating said control parameters to said residential gateway via said WAN, said residential gateway communicating with said at least one residential device to provide control of the residential device based on said control parameters.